



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,729	10/22/2003	Adam D. Pratt	SHXP101US	2728
24041	7590	06/29/2005	EXAMINER	
SIMPSON & SIMPSON, PLLC 5555 MAIN STREET WILLIAMSVILLE, NY 14221-5406			MITCHELL, KATHERINE W	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/605,729	Applicant(s) PRATT, ADAM D.	
	Examiner Katherine W. Mitchell	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-8, 12-20 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 12-20 and 22-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2-5-2004</u> - <u>3 pages</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of the subject matter of claims 5, 18, and 19 is withdrawn. Rejections based on the newly cited reference(s) follow. This action is being made non-final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 4, 12, 14-20, 22, 23, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's admitted prior art.

Applicant admits in paragraphs [0031, 0033, and 0040] that it is known to coat fasteners of types known in the art having shapes known in the art, surface finishes including knurls, ridges, smooth, and threads as known in the art, with adhesives including encapsulated adhesives and epoxies known in the art. Applicant incorporates Dalton by reference, and Dalton further includes adhesive coating of rivets, threaded nuts, bolts, and flanged fasteners, as well as partial and complete coating of fasteners including their heads and flanges specifically using adhesives encapsulated in microcapsules.

4. Claims 1, 3-4, 6-8, 12, 14-17, 20, 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Witten USP 5082405.

Re claim 1: Witten discloses a threaded insert with an inner surface 30 and outer surface 52 (Fig 12 best shows this) and at least a portion of the outersurface has an adhesive thereon (col 3 lines 45-55). Threads are at 58. See col 4 lines 13-32.

Re claim 3: The adhesive covers the outer surface per col 3 lines 48-51.

Re claim 4: The fastener has a substantially circular cross section per Fig 1-6.

Re claim 6-8: A ridge 20A on the outer surface is shown in Fig 3. Since col 3 lines 48-51 disclose that the adhesive completely coats the entire insert ridge 20A inherently also has adhesive on it. Note that 54 can also be considered a ridge.

Re claims 12, 14: Epoxy is considered a threadlocking composition as it locks the threads to the substrate.

Re claim 15: Fig 12 best shows the threaded inner surface

Re claim 16-17: Fig 3 shows insert including flange 36 which has a surface. Note that col 3 lines 32-65 teach that the flange can be placed so it is flush with the outer skin 44, which would thus be in contact with the adhesive.

Re claim 20: The article with a stud (threaded member) is taught in col 3 lines 51-55 and col 4 line 52-55.

Re claims 23-24: Fig 12 shows open end at 12, and closed end at 14.

Re claim 25: Witten shows a fastener including a threaded insert, with an inner surface at 30, an outer surface at 52, a flange at 54, and at least a portion of the flange has adhesive thereon, per col 3 lines 32-65. Note that Fig 8 and 8 show that flange 54 would be completely surrounded by adhesive.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1,12,13,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witten USP 5082405 in view of Thompson USP 4632944. As discussed above, Witten teaches the claimed invention, but this alternate rejection is provided to show that having the adhesive coated to the fastener prior to use is also known.

Re claim 1: Witten discloses a threaded insert with an inner surface 30 and outer surface 52 (Fig 12 best shows this) and at least a portion of the outersurface has an adhesive thereon (col 3 lines 45-55). Threads are at 58. See col 4 lines 13-32. However, Witten applied the adhesive to the fastener during the installation process. Thompson teaches that adhesive can be applied to engineering parts including fasteners, prior to the installation process of the fastener, in col 1 lines 5-10, and col 5 lines 58-64.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Witten and Thompson before him at the time the invention was made, to modify Witten as taught by Thompson to include applying an adhesive, including an epoxy or methacrylate ester, to the fastener outer surface, in order to obtain a fastener with adhesive pre-applied so that the mess and labor involved in adding adhesive during installation can be avoided. One would have been motivated to make such a combination because ready to install fasteners not needing additional material for

Art Unit: 3677

proper insertion and adherence would have been obtained, as taught/suggested by Thompson.

Further, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used specific adhesives known in the art, including a microencapsulated adhesive, and an epoxy or methacrylate ester since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of matching the selection to the application based on engineering criteria. *In re Leshin*, 125 USPQ 416. Examiner also notes that applicant has admitted in paragraph [0040] of the specification that any adhesive known in the art can be used, including the microencapsulated adhesives.

7. Claims 1,12,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witten USP 5082405 in view of Locktite Product 204 Product Description Sheet as cited by applicant, hereafter called Locktite 204. As discussed above, Witten teaches the claimed invention, but this alternate rejection is provided to show that having the adhesive coated to the fastener prior to use is also known.

Re claims 1,12,13: Witten discloses a threaded insert with an inner surface 30 and outer surface 52 (Fig 12 best shows this) and at least a portion of the outersurface has an adhesive thereon (col 3 lines 45-55). Threads are at 58. See col 4 lines 13-32. However, Witten applied the adhesive to the fastener during the installation process. Locktite 204 teaches that threadlocking adhesive can be applied to engineering parts including fasteners, prior to the installation process of the fastener, in "Product

Art Unit: 3677

Description" - it is pre-applied and remains inert on the fastener until the assembly of the threads releases the methacrylate ester {Properties of Uncured material} resin.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Witten and Locktite 204 before him at the time the invention was made, to modify Witten as taught by Locktite 204 to include applying an adhesive, including methacrylate ester, to the fastener outer surface, in order to obtain a fastener with adhesive pre-applied so that the mess and labor involved in adding adhesive during installation can be avoided. One would have been motivated to make such a combination because ready to install fasteners not needing additional material for proper insertion and adherence would have been obtained, as taught/suggested by Thompson.

Further, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used specific adhesives known in the art, including a threadlocking agent such as methacrylate ester since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of matching the selection to the application based on engineering criteria. *In re Leshin*, 125 USPQ 416. Locktite 204 specifically teaches that it is designed for use with threaded assemblies, including bolts, screws, nuts, pipe plugs and fittings, and thus there is no inventive step in using Locktite 204 with various threaded assemblies.

8. Claims 18,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witten USP 5082405 in view of Heminger USP 5733083.

As discussed above, Witten teaches the claimed invention, but does not specify that the flange comprises a knurled portion with adhesive. Heminger teaches that knurling is used to increase the surface area in contact with the adhesive, and thus improve adhesion to the fastener body, and knurling resists rotation when the fastener inserted in a hole, in col 7 lines 4-13 and 43-53.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Witten and Heminger before him at the time the invention was made, to modify Witten as taught by Heminger to include knurling the surface, including the flange, and applying an adhesive, in order to obtain a fastener likely to adhere well to the adhesive layer. One would have been motivated to make such a combination because threads and ridges along the body would serve as "grippers", but the flange would need knurling or other roughening to best ensure that the adhesive would grip the flange.

9. Claims 1,2-4, 6,12,14, 16, 20, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castor et al USP 5853841.

Castor discloses an anchor type fastener including a sleeve 7 including an inner and outer surface with an adhesive 8 on the outer surface, per col 3 lines 20-25. Figs 1,2 show the adhesive as a strip coating the surface of the sleeve and show the fastener with a circular cross section. . The adhesive is disclosed as a microencapsulated in col 2 lines 29-39. The fastener includes a ridge 6 and flange 4. A bolt or stud 1 is shown in Fig 1 and 2. The end at 9 is open. Although Castor does not

Art Unit: 3677

teach the specific fasteners claimed, both applicant and Castor teach that the specified fasteners are exemplary only, and that other fasteners known in the art may be coated. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have coated alternate fasteners, since the examiner takes Official Notice of the equivalence of different fastener for their use in the connecting art and the selection of any of these known equivalents to fasten specific materials would be within the level of ordinary skill in the art.

Response to Arguments

10. Applicant's arguments with respect to claim all claims have been considered but are moot in view of the new ground(s) of rejection.

However, examiner notes that applicant appears to be arguing limitations not in the claims. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., coating is not obtained by insertion/use of the fastener) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

11. In response to applicant's argument that the fasteners are used in a particular way to obtain a coating, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim

Art Unit: 3677

drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

12. Further, applicant argues that Castor has fasteners which are used in different applications than those intended by applicant. As states in the office action, the prior art is clear that adhesive coatings for fasteners are well known, and the types of fasteners are known, and selection of one fastener versus another for coating is not an inventive step. Applicant's own specification paragraph [0027] notes that the coating is not limited to the specified fastener types. Further, examiner notes that a "drilling cylinder (cup) is not used in heavy industry, but to connect furniture parts.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

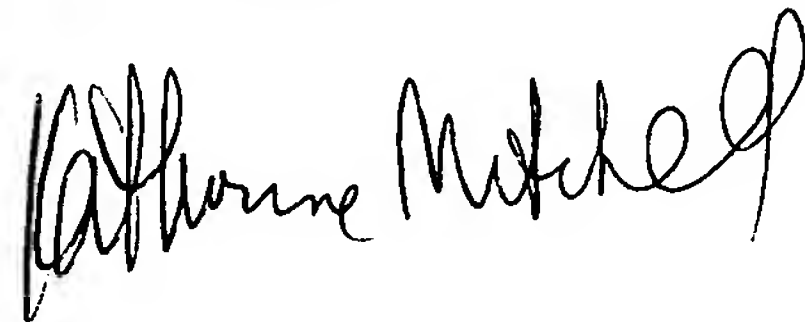
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3677

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Katherine W Mitchell
Examiner
Art Unit 3677

A handwritten signature in black ink, appearing to read "Katherine Mitchell", with a stylized flourish at the end.

Kwm
6/21/2005